

## ICT AND EDUCATION

### CENTRAL AFRICAN REPUBLIC



Central African Republic Map

## 1. OVERVIEW

The Central African Republic is one of the least advanced countries in the world and faces economic and technological difficulties. There needs to be a large effort made as far as training, budgeting, and awareness in the use of ICT are concerned. At the education level, introducing ICT into the basic education (especially in secondary education) has become a necessity, and the development of teaching skills is necessary to enhance educational technology.

It's a country with only one university and low rates of enrollment at most levels of education. The number of students is also quite low at the scale of the whole population. To reverse this situation, the government has made a worthy effort to promote basic education, especially concerning primary and secondary schools. In the past few years, the state has built new establishments in the capital as well as in the provinces, thanks to the financial support from the European Union and the World Bank.

## 2. PROFILE

Occupying a surface area of 623,000 sq km, the Central African Republic (CAR) is a landlocked country bordered by Chad on the North, the Democratic Republic of Congo and the Congo on the South, Cameroon on the West, and Sudan on the East. Its highest point is Mount Ngaoui, at 1,420 m.

The country's climate is for the most part tropical, with a wet season from May to October and a dry season from November to April. The climate varies from region to region, with an equatorial climate in the South, intertropical from Carnot to Berberati in the West, and desert towards Birao in the North, with a dry season lasting 8-9 months, and a cool and stormy - although intertropical-season on the highlands.

It is divided into 16 prefectures and 67 sub-prefectures. A predominantly agricultural country, the CAR exports timber, coffee, and diamonds. Its mineral resources include uranium, iron as well as oil, but these are not worked yet.

### 3. FACTS AND STATISTICS

*Table 1: Country Data*

Surface area:	623,000 km <sup>2</sup>
Population:	3, 529,810 people
Official and economic capital: Bangui	600,000 people
Demographic growth rate:	1.7 %
Population density :	5.7 people/km <sup>2</sup>
GNP:	0.97 billion US Dollars
GNP per capita:	270 US Dollars
GNP real growth rate:	+3.3 %

Source : International Télécommunications Union, Situation of ICT in the Central African Republic, November 2004

### 4. EDUCATION SYSTEM

Law 97.014, enacted December 10, 1997, about the orientation of education is the essential element of large measures taken to stop the drift in the education system. It emphasizes the fact that education is a national priority and that every citizen is entitled to education and knowledge.

The National Education Development Plan (PNDE) which follows the above mentioned law sets the general strategy outline to reach the objectives of quality, efficiency, accessibility, and equity in education for the next ten years. It can be noticed that some strategies in the education section of the National Plan For the Fight Against Poverty (PNLCP) are akin to those of PNDE.<sup>1</sup>

In 2003:

- The total illiteracy rate was 57.3%. 46.2% of them were men, 68.0% women, and 70.9 % lived in rural zones.
- The total schooling rate in the Fundamental 1[F1] was 68.7%; 58.7% of this portion were women and 46% lived in rural zones.
- The net schooling rate in Fundamental 1 was 40.7%, which was 44.3% of men, 36.9% of women, and 26.7% lived in rural zones.

The change in the net schooling rate in the Fundamental 1 indicates a decline in the rate from year to year:

1988: 47.8%  
2000: 42.9%  
2003: 40.7%

The total schooling rate in the Fundamental II [junior high school] was 10.8%: 12.6% of men and 9.0 % of women.

There is only one university, where the increase in enrollment is low. The relative proportion of students in the total population is just as low. To reverse this situation, the government has made a worthy effort to promote basic education, especially concerning primary and secondary institutions. In the past few years, the state has built new establishments in the capital as well as in the provinces, thanks to funding from the European Union and the World Bank.

## 5. NATIONAL ICT POLICY

The elaboration of a national strategy began in January 2002. The government decreed a process to set up the National Plan for Information and Communication Infrastructure (NICI). Some consultation workshops were organized for members of the government, university staffs, the private sector, managers and authorities in telecommunication regulation. After that an initial study was carried in June and July 2002. The current government made a proposal to organize a national workshop to validate and activate the NICI plan and to reach a consensus.<sup>2</sup>

The national policy aims to:

- Promote public participation through dialogues;
- Support initiatives of basic communities through information, knowledge, and technical skill exchanges among them;
- To broadcast information and introduce new innovations through availability of social communication instruments;
- Promote systems of vulgarization, supervision, training, and horizontal communication.

The Director of the Development of Technology, a branch of the Ministry of Telecommunications and Technology, created in 1999 is responsible for this policy..

## 6. ICT INFRASTRUCTURE

*Table 2: Communications Indicators*

Literacy rate	49.6
Televisions per 1000 people	6
Radios per 1000 people	80
Fixed telephone lines per 1000 people	2
Cell phones per 1000 people	3
Personal computers per 1000 people	1.9
Internet users (thousands)	2
Total number of main lines	12,000 (10,000 in Bangui, 2000 in the Provinces)

Number of mobile phone subscribers	60,000
Telephone density	0.34 (phone lines/100 people)
Main lines growth rate	8%

Source : [http://afrique.droits.apc.org/index.shtml?apc=s21855e\\_1](http://afrique.droits.apc.org/index.shtml?apc=s21855e_1)<sup>3</sup>

Given the underdevelopment of the basic network, the access to new information and communication technology is for now only possible in the capital. Today there are around 1800 Internet subscribers out of a population of 600,000 in the capital. 20 private Cyber cafés and two education centers offer Internet access on working days. The insufficiency of the basic network is not due to a lack of political will but to the restricted financial resources. Notably, the arrival of RCA in the field of new information and communication technologies was delayed due to the low telephone density in the telephone network.

## **7. ICT IN EDUCATION**

In Africa the educative sector is the first one to make great benefit from the valuable uses of the Internet. Multimedia-supported instruction, distance education, and distance access to scientific information all constitute significant assets for those seeking to further their knowledge.

It is a fact, however, that there is a great need for resources to support the equipping of schools with computer technology and for management or teaching purposes.

Several initiatives are in place to address this need, detailed in the following section.

## **8. MAJOR INITIATIVES AND CURRENT PROJECTS**

Some pilot projects have been set up to equip urban zones with digital Community Centers. Three of these projects are in progress and three other centers are expected to be built next year thanks to outside funding.

As part of its mission in Central African Republic, The United Nations Program for Development (PNUD) has elaborated an action plan concerning Information and Communication Technology. This action plan is organized around three main themes relating to public policy, particularly important for the country and its education, health, employment, government efficiency, local content, social integration and the promotion of science, technology, and invention. It is adapted to the country's national characteristics, needs and values. It emphasizes the State's central role in the formulation and implementation of a policy tied to ICT, in partnership with international organizations, the private sector, and civil society.

The action plan concentrates on the social and economic objectives of the Millennium Declaration. The main objective of its action plan is Universal Access to the Information Society.

Its goals are:

- To use new and existing technologies in order to create universal connectivity, by distributing information and communication materials so that everyone can benefit from easy access, including the elderly and handicapped;
- To develop connectivity, including Internet access, in institutions receiving many people such as digital community centers, schools, universities, libraries, post offices, community and cultural centers, archives, museums, etc;
- To find appropriate solutions for promoting information and communication technology (ICT) adapted to the environment in remote, impoverished, and particularly rural zones, but also in poorly serviced or marginalized urban zones. This can be done by establishing for example multipurpose community access centers in order to guarantee an integrated access to information and social services;
- To find solutions to make access to ICT affordable in regions with low revenue.
- Information and applications will be offered in the language and cultural context that is most familiar to the user, which will encourage further ICT use.
- Unwritten languages will be included by using audio-digital tools.

The close collaboration between PNUD, the Central African Government, and CISCO Systems has resulted in the creation of the Local CISCO Academy of Bangui, at the University of Bangui. This institution offers advanced training in conceiving, installing, and maintaining computer networks. This centre has already trained national technicians who are operating.

The project supporting the fight against digital gap (ADEN) and run by the French Cooperation for Democratizing ICT Access: Students visit the ADEN centres, where teachers now develop tutorials. High school students, fascinated by this new tool, can stay connected all day and during breaks. With adult supervision, the young Internet users discover lessons on the Net and their grades in school have clearly improved. The number of students and teachers who use it has also increased. Today, the Central African state has approved and authorized total exemption for ADEN centres all over the country.

The Virtual Francophone Campus offers Trainings in Information and Communication Technology.

The Department of Higher Education, with aid from the French Cooperation, initiated a program that aims to set up a network of all university establishments. This program has finally enabled the creation of a Multimedia Resource Centre (CRM) and the CISCO Academy with the support of PNUD/UIT. The CRM has already offered a training program to attain the DESS BAC+5 [a post-Bachelor's professional degree] for the year 2003. Twelve students are trained every year in ICT vocations. For its future development, the CRM has, through another project called SUPCA aims to deal with Tele-education and produce multimedia in CD-ROM format. A virtual campus will soon be installed by the Francophone Agency. Students are asked, at the end of their training to carry out website creation projects (University, Pasteur Institute of Bangui).<sup>4</sup>

The project supporting the fight against digital gap (ADEN) has been set up in 11 French, English, and Portuguese sub-Saharan African speaking countries from 2003 to 2008 by the International Cooperation of the French Ministry of Foreign Affairs. Its goals are to democratise Internet access, train people in the use of new technology, and encourage the african production of content. It is the response to the question of “how to reduce the digital gap in Africa?” by setting up a thorough plan for creating public Internet access centres in digitally isolated zones.<sup>5</sup>

The main ADEN centers in the Central African Republic are:

- The ADEN Center of Bambari “Ouaka”
- The ADEN Center of Bangassou
- The ADEN Center of Berberati
- The ADEN Center of Bouar
- The ADEN Center of Mbaiki “Wambangana”

The International Telecommunications Union launched a project aiming to create a network of at least 100 multipurpose community call boxes (TCP) in 20 African countries, including the Central African Republic. These TCPs will give communities accesses to ICT, to help them valorize their socio - economic participate in the information society. These TCPs will be managed by women, who can thus actively participate in the processes of development and decision-making on the African continent. This project is part of the commitment made by 175 countries who adopted an action plan during the first phase of the Information Society World Summit, aiming to make the advantages of ICT within humanity’s reach.<sup>6</sup>

## **9. ENABLING AND CONSTRAINING FACTORS IN ICT USAGE**

### **Enabling Factors**

Access to the world Web through local telecommunication providers offers Central African Republic people many opportunities to remove themselves from isolation, an important element in the age of economic globalization, where the rapid spread of information constitutes the foundation of strategic decision-making and management.

The Internet makes valuable public and private services accessible to all users because there are no physical barriers. It also reinforces the openness to the world as well as the national heritage identified as important database available on the web.

### **Constraining Factors**

The late entry of RCA into the domain of ICT is a serious problem today. The weakness of telephone networks is a major handicap to the development of technology (the telephone density is one of the weakest in Africa). Additionally, a military-political crisis that took place March 15, 2003 severely affected the already-inadequate telecommunication infrastructures, and therefore the development of ICT.

The main obstacles for developing ICT are:

- The high cost of equipment due to a hard fiscal system;
- Lack of energy sources in rural zones;
- Scarce finances

These obstacles can be overcome thanks to an incentive investment code to bring investors in this domain.

Human resources are available in the areas of:

- University of Bangui (in all departments)
- The Institute of Technology
- Multimedia Resource Center
- CISCO Academy
- National Office of Computers (ONI)

## 10. REFERENCES

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<sup>1</sup> UNESCO, 2006 First Meeting of National Coordinators of the UNESCO Initiative for Training Teachers in Sub-Saharan Africa (TTISSA). A summit on the situation of teachers in Central African Republic BREDIA, Dakar, March 7-9, 2006.

<sup>2</sup> Investment opportunities in the ICT sector and in e-business services in Central and West Africa. November 7-9, 2006. Bamako, Mali.

<sup>3</sup> [http://afrique.droits.apc.org/index.shtml?apc=s21855e\\_1](http://afrique.droits.apc.org/index.shtml?apc=s21855e_1)

<sup>4</sup> RCA: State evaluation of knowledge and the use of ICT. Mission statement drafted by Mr. Jerome, National Consultant in ICT. February 2004.

<sup>5</sup> <http://www.africaden.net>

<sup>6</sup> [http://www.itu.int/newsarchive/press\\_releases/2005/02-fr.html](http://www.itu.int/newsarchive/press_releases/2005/02-fr.html)